

Nicola Bernardini

Via Urbana, 103
00184 Rome, Italy

Author Index of *Computer Music Journal*, Volumes 1-9, 1977-1985

- Abbott, Curtis: 2(1):4-5; 2(1):19-23; 2(2):4-6;
2(3):7-9; 3(2):6-12; 3(3):16-24; 4(4):45-59;
5(1):13-33; 5(2):36-44; 7(1):76-77; 7(4):
66-69.
- Agnello, Anthony: 9(3):24-38.
- Ahlstrom, David: 6(3):83-85.
- Alles, H. G.: 1(4):5-6, 7-9, 10-13, 14-15; 3(3):
28-37.
- Allouis, Jean-François: 3(1):14-17.
- Alphonse, Bo: 4(2):26-36.
- Ames, Charles: 6(3):46-64; 7(4):45-56.
- Andersen, Kurt H.: 2(3):16-23.
- Angell, James B.: 6(4):36-40.
- Appleton, Jon: 8(1):48-51.
- Armbruster, Greg: 1(3):40-47.
- Arveiller, Jacques: 6(2):72-78.
- Askenfelt, Anders: 7(1):37-43.
- Baecker, Ronald: 2(4):10-20; 3(4):14-25; 4(1):
8-21; 5(3):50-56; 6(2):32-44.
- Balaban, Mira: 9(3):7-12.
- Bales, R. H.: 8(2):63.
- Balzano, Gerald J.: 4(4):66-84.
- Banger, Colin: 7(4):33-39.
- Barbeau, Lous C.: 8(2):24-40.
- Barrière, Jean-Baptiste: 8(3):15-31, 74-78.
- Bartlett, Martin: 3(1):25-29.
- Battier, Marc: 3(3):50-53.
- Bayer, Douglas: 1(4):22-23.
- Beauchamp, James: 3(2):35-44; 3(3):42-49.
- Berger, R.: 6(4):43-44.
- Bernard, Jonathan W.: 6(2):65-71.
- Berg, Paul: 3(1):38-41; 4(1):25-35.
- Bischoff, John: 2(3):24-29.
- Blevins, R.: 5(2):66; 5(4):75; 7(3):38; 8(3):88.
- Blum, Thomas: 3(1):6-7; 3(4):58-59; 5(1):74-76;
5(2):36-44, 67, 68-70; 5(4):74; 6(2):79-82;
7(2):8-35; 8(4):71-73.
- Bolognesi, Tommaso: 7(1):25-36.
- Borys, M.: 9(2):49-52.
- Boulanger, Richard: 8(4):45-54.
- Bregman, Albert: 3(4):26-43.
- Brody, Martin: 5(4):80; 6(2):65-71.
- Brün, Herbert: 5(2):29-35.
- Buxton, William: 2(3):33-42; 2(4):10-20, 28-38;
3(4):14-25; 4(1):8-21; 5(3):50-56; 6(2):32-44.
- Byrd, Donald: 1(2):56-60.
- Cadoz, Claude: 8(3):60-73.
- Cann, Richard: 3(3):6-11; 3(4):9-13; 4(1):36-42.
- Cavaliere, Sergio: 6(4):22-35.
- Chadabe, Joel: 1(3):5-11; 2(1):12-18; 7(3):37;
8(1):22-27; 8(2):64.
- Chafe, Chris: 6(1):30-41.
- Charbonneau, Gerald R.: 5(2):10-19.
- Chauveau, Alain: 3(3):16-24.
- Child, Peter: 5(4):82-83; 8(4):56-64.
- Chowning, John: 1(2):46-54; 1(3):48-52.
- Cody, Daniel W.: 6(2):52-60.
- Cointe, Pierre: 8(3):32-50.
- Cooper, S. W.: 9(2):66.
- Corinthios, M. J.: 8(2):24-40.
- Cotton, Martha: 9(1):60.
- Crawford, David: 7(1):21-24.
- Cummings, Conrad: 4(1):84-85; 5(1):77;
5(3):84-85; 6(4):46; 8(3):88.
- Dashow, James: 4(1):43-52; 8(3):82-83.
- DePoli, Giovanni: 7(4):8-26.
- Demarinis, Paul: 8(2):61.
- DiGiugno, Giuseppe: 1(4):7-9.
- Dixon, Horace M.: 7(2):79.
- Duesenberry, John: 9(3):39-51.
- Earle, Nan: 5(2):36-44.
- Eastty, Peter: 3(3):16-24.
- Englert, Giuseppe: 5(4):30-35.
- Farmer, Roscoe: 9(4):72.

- Fedorkow, Guy: 2(3):33-42; 2(4):28-38;
4(1):8-21.
- Florens, J.: 8(3):60-73.
- Fogels, E. A.: 2(4):28-38.
- Fry, Christopher: 4(3):48-58, 61-65; 8(4):20-35;
9(2):9-19; 9(3):81-83.
- Fryden, Lars: 7(1):37-43.
- Gaburo, Kenneth: 9(1):39-44.
- Galler, Bernard A.: 1(4):24-31.
- Garvey, Gregory Patrick: 6(3):81, 82; 6(4):47;
7(4):70-72; 8(1):57-58; 9(1):68-71.
- Glassner, Andrew: 6(1):66-73.
- Gold, Rich: 2(3):24-29.
- Greenspun, Philip: 9(3):68-79.
- Greussay, Patrick: 4(3):40-47.
- Grey, John Michael: 1(2):39-45; 1(3):12-29;
2(1):12-18; 2(2):23-31.
- Groberg, G.: 4(1):82-83.
- Gross, Dorothy: 5(2):36-44; 8(4):35-42.
- Gross, Robert: 8(2):7-23.
- Hammer, Ernest Lee: 7(3):39; 7(4):61; 8(2):64;
9(1):66; 9(2):67; 9(3):84.
- Harvey, Jonathan: 5(4):22-24; 8(3):74-78.
- Hastings, Chuck: 2(1):48-59.
- Haus, Goffredo: 7(3):31-36; 9(2):20-40.
- Haynes, Stanley: 4(4):23-44; 6(1):7-17; 8(3):
74-78.
- Heeter, Leslie: 8(3):79; 9(2):62.
- Hegel, Willie: 6(4):42.
- Hiller, Lejaren: 5(4):7-21.
- Hoge, Steve: 9(3):24-38.
- Holden, W.: 7(1):70-71.
- Hollander, Laurie: 5(2):36-44.
- Holtzmann, S. R.: 3(2):53-61; 5(1):51-64.
- Horowitz, David: 7(2):76.
- Horton, Jim: 2(3):24-29.
- Houtkin, Andrea: 9(1):63-64; 9(2):67; 9(3):84-86.
- Howe, Hubert S. Jr.: 6(2):45-51; 9(1):66-67.
- Jaffe, David A.: 7(2):56-69; 9(4):38-48.
- Jones, Kevin: 5(2):45-61.
- Kahrs, Mark: 5(2):20-28.
- Kaplan, S. Jerrold: 5(3):62-73.
- Karplus, Kevin: 7(2):43-55.
- Kaske, Stephan: 8(3):84; 9(1):19-28.
- Keane, David: 7(6):66; 8(2):65-68; 8(3):51-59;
8(4):74-75.
- Kendall, Gary S.: 5(4):66-73; 7(4):63.
- Koenig, Gottfried Michael: 7(3):27-32.
- Kornfeld, W.: 4(2):6-12.
- Kowalski, Michael J.: 6(1):66-73.
- Krasner, Glenn: 4(4):4-14.
- Lanier, Jaron: 8(2):62.
- Lansky, Paul: 5(3):45-59.
- Laske, Otto: 1(4):53-60; 2(4):39-45; 4(2):73-83;
5(4):54-65; 8(3):80; 8(4):55; 9(1):59; 9(4):69.
- Lawson, James: 1(4):16-21; 3(3):16-24.
- Laszlo, D.: 3(2):5; 5(4):75; 6(3):78.
- LeBrun, Marc: 1(2):30-35; 1(4):51-52.
- Lehrman, Paul: 9(1):65; 9(2):63, 68-69.
- LePoulin, Edward: 7(3):41.
- Levitt, David: 8(1):9-21.
- Lieberman, Henry: 6(3):8-21.
- Lohner, Henning: 9(4):62-65.
- Lorrain, Denis: 4(1):53-81; 8(3):74-78.
- Loy, Gareth D.: 1(2):61; 2(1):60-61; 2(4):6; 5(1):
34-50; 7(4):60; 9(2):41-48; 9(3):80; 9(4):8-26.
- Luciani, Annie: 8(3):60-73.
- Manley, Jared L.: 5(3):86-87; 6(2):83.
- Manthey, Michael: 2(2):32-37.
- Mathews, Max V.: 1(4):16-21; 4(4):45-59.
- Matthews, William: 9(1):62.
- McAdams, Stephen: 3(4):26-43.
- McConkey, James: 5(3):60-61, 81; 7(3):25-30;
8(2):41-47, 59-60; 9(2):53-59.
- McNabb, Michael: 5(4):36-53.
- Meehan, J.: 4(2):60-65.
- Meyers, Roger: 2(1):12-18.
- Mezei, Leslie: 2(4):10-20.
- Miller, Jim: 9(4):27-37.
- Minsky, Marvin: 5(3):28-44.
- Monda, T. X.: 6(2):84-85.
- Mont-Reynaud, Bernard: 6(1):30-41.
- Moore, Francis Richard: 1(2):26-29; 2(1):38-47;
2(2):38-60; 5(3):74; 6(1):18-29; 7(3):6-15.
- Moorer, James Anderson: 1(1):4-37; 1(2):39-45;
1(3):12-39; 1(4):32-38; 2(1):32-37; 2(2):
32-31; 3(2):13-28; 3(3):16-24; 5(1):4-12;
6(3):22-31.
- Morrill, Dexter: 1(1):46-52; 5(4):25-29.
- Murray, Neil V.: 9(3):7-12.
- Myhill, John: 3(3):12-15.
- Newcomb, Steven R.: 9(4):49-61.
- Oppenheim, David: 2(1):6-11.
- Owens, Robert J.: 9(2):64-65.

- Papadia, Loreto: 6(4):22-35.
 Parascandolo, Pasquale: 6(4):22-35.
 Parks, David: 7(1):44-65.
 Patel, S.: 3(4):14-25; 5(3):50-56; 6(2):32-44.
 Pennycook, Bruce: 2(4):7-8; 5(3):82-83; 7(4):33-39.
 Piszczalski, Martin: 1(4):24-31; 3(1):18-24; 3(3):25-27.
 Place, David F.: 7(1):71; 7(2):79; 7(3):40; 7(4):62; 8(4):68.
 Polansky, Larry: 7(4):40-44.
 Poor, Robert: 4(1):82.
 Potard, Yves: 8(3):15-31.
 Puckette, Miller: 6(1):52-65.
 Rahn, John: 4(2):66-72.
 Reeves, William: 2(4):10-20; 3(4):14-25; 4(1):8-21; 5(3):50-56; 6(2):32-44.
 Risberg, Jeffrey: 5(4):84.
 Risset, Jean-Claude: 9(1):11-18.
 Roads, Curtis: 2(2):7-8, 61; 2(3):10, 11-15, 30-32, 44-46; 2(4):21-27; 3(1):8-13, 48-56; 3(2):29-34; 3(3):55; 3(4):6-8, 50-57; 4(2):13-25; 4(3):25-39, 63-64, 64-65; 4(4):15-22; 5(3):7-27, 57-59, 84; 5(4):75, 76, 77, 81; 6(1):74; 6(2):84; 6(3):78, 79; 6(4):10-21, 41, 45; 7(1):67, 68, 73-75; 7(2):36-42, 70-74, 75; 7(3):16-24, 39, 42; 7(4):57; 8(1):52, 56; 8(2):61; 8(3):89, 90; 8(4):67; 9(2):60, 66; 9(4):66.
 Rodet, Xavier: 8(3):9-14, 15-31, 32-50.
 Rogers, Amelia: 7(1):68-69.
 Rolnick, Neil B.: 2(2):13-22.
 Rossum, Dave: 1(2):62.
 Rothgeb, J.: 4(2):36-40.
 Rowe, Robert: 4(1):25-35.
 Rozenberg, Maurice: 3(1):42-47; 6(3):65-71.
 Rush, Loren: 6(1):30-41.
 Sasaki, Lawrence: 2(4):28-38; 4(1):22-24.
 Saunders, Steve: 1(1):53-55.
 Scaletti, Carla: 9(1):45-58.
 Shindler, Keith: 8(1):28-42.
 Schottstaedt, William: 1(4):46-50; 7(1):11-20; 8(3):84.
 Snell, John: 1(1):30-45; 1(2):4-25, 36-38, 39-45; 6(3):33-45.
 Sniderman, R.: 3(4):14-25.
 Smith, Julius Orion III: 5(2):62-65; 6(4):36-40; 7(2):56-69; 9(3):13-23.
 Smith, K. C.: 2(3):33-42; 2(4):28-38; 4(1):8-21, 22-24.
 Smith, Leland: 5(2):36-44.
 Smoliar, Stephen: 4(2):41-59; 5(3):74-80.
 Spiegel, Laurie: 7(2):77.
 Stautner, John P.: 6(1):52-65; 7(2):78.
 Steiglitz, Kenneth: 5(3):45-59.
 Stetten, George: 7(2):80.
 Stickney, Kimball P.: 7(1):72.
 Stone, Carl: 3(3):55.
 Strawn, John: 1(3):12-29, 53; 2(2):23-31; 2(4):8-9; 4(3):3-24, 59-60, 66-73, 5(1):65-73, 78-79; 5(2):36-44; 5(4):78, 79; 6(2):11-31; 7(4):58-59.
 Strong, Alex: 7(2):43-55.
 Sundberg, Johan: 7(1):37-43.
 Swank, Richard L.: 9(4):70-71.
 Swift, G. W.: 4(4):60-65; 9(2):49-52.
 Tanawa, K.: 9(1):61.
 Taylor, Joseph Paul: 9(2):60-61; 9(4):67-69, 71-72.
 Theriault, David: 4(1):25-35.
 Tobenfeld, Emile: 8(4):43-44.
 Trask, Alexander: 9(1):61.
 Truax, Barry: 1(3):30-39; 1(4):39-45; 6(3):72-77; 8(1):59-60; 9(1):29-38.
 Vaggione, Horacio: 8(2):48-54.
 Wallraff, Dean: 3(4):44-49.
 Wells, Thomas: 8(4):69-70.
 Wentz, Brooke: 8(4):76-78.
 Wessel, David L.: 3(2):45-52.
 White, Julie: 8(1):43-47.
 White, Kathleen J.: 8(2):55-58.
 Wieneke, Paul: 3(1):7; 3(3):54; 8(1):53.
 Yavelow, Christopher: 8(3):85-87; 8(4):65-66; 9(3):52-67.
 Youngquist, Robert: 2(2):9-12.
 Yunik, M.: 4(4):60-65; 9(2):49-52.
 Zeef, Jon: 7(1):21-24.

Subject Index of *Computer Music Journal* Volumes 1–9, 1977–1985

Introduction

This subject index is keyed to page numbers of entire articles, rather than specific page numbers within an article. Most articles are indexed under several categories.

Many of the texts from the first three volumes of *Computer Music Journal* can be found in revised and updated form in two books: *Foundations of Computer Music*, edited by Curtis Roads and John Strawn, 1985, MIT Press, and *Digital Audio Signal Processing: An Anthology*, edited by John Strawn, 1985, William Kaufmann, Inc.

A/D/A Conversion

2(1):32–37, 6(4):10–21, 8(2):24–40,
8(4):13–19

Additive Synthesis

1(1):4–37, 3(1):42–47, 3(3):45–52,
4(1):22–24, 4(3):3–24, 5(2):10–19,
8(1):28–42

Aesthetics of Computer Music

7(4):27–32, 9(1):39–44. *See also* Record and Concert Reviews section in each issue, Interviews with individual composers and artists

Algorithmic Composition

2(1):12–18, 2(3):11–15, 2(3):24–29,
3(1):25–29, 3(1):42–47, 3(2):53–61,
3(3):12–15, 3(3):38–41, 3(3):50–53,
4(1):53–81, 4(2):13–25, 4(2):36–40,
4(2):66–72, 4(3):40–48, 4(3):48–58,
5(1):51–64, 5(2):45–61, 5(3):7–27,

5(4):7–21, 5(4):30–35, 5(4):54–65,
5(4):66–73, 6(2):72–78, 6(3):46–64,
6(3):72–77, 7(1):11–20, 7(1):25–36,
7(2):36–42, 7(4):27–32, 7(4):40–44,
7(4):45–56, 8(1):22–27, 8(1):48–51,
8(2):48–54, 8(3):32–50, 8(4):20–34,
8(4):45–54, 9(1):19–28, 9(1):29–38,
9(1):39–44, 9(3):39–51

Amplitude Modulation Synthesis

4(1):43–52

Analysis of Computer Music Compositions

1(3):40–47, 2(3):24–29, 4(1):53–81,
5(3):22–24, 5(4):36–53, 5(4):66–73,
6(3):46–64, 6(3):72–77, 7(4):45–56,
8(2):48–54, 8(3):74–78

Analysis/Synthesis

1(1):4–37, 3(3):6–11, 3(4):9–13, 4(1):36–42

Architecture for Digital Sound Synthesizers

1(4):7–9, 2(4):28–38, 3(3):16–24, 3(4):44–49,
5(1):4–12, 5(3):62–73, 6(2):52–60,
7(1):44–65, 9(3):24–38

Artificial Intelligence and Music

4(2):13–25, 4(2):36–40, 4(2):60–65,
4(3):48–58, 5(4):30–35, 7(4):27–32

Automated Composition. *See* Algorithmic Composition

Automatic Music Transcription

1(4):24–31, 1(4):32–38

CHANT. *See* Time-Domain Formant-Wave-Function Synthesis

Cognitive Theories of Music

4(2): 73-83, 5(3): 28-44, 7(1): 37-43

Composition. See Analysis of Computer Music Compositions, Algorithmic Composition, Interactive Composition

Computer Graphics

3(4): 14-25, 3(4): 50-57, 5(2): 29-35,
7(1): 21-24, 7(3): 31-36

Computer Music Didactics

6(2): 72-78

Computer Music Software Systems

1(2): 56-60, 1(3): 30-39, 2(1): 19-23,
2(2): 13-22, 4(3): 40-47, 8(3): 32-50,
9(1): 29-38, 9(3): 52-67

Computer Music Systems

1(3): 5-11, 1(4): 5-6, 1(4): 10-13, 2(2): 32-37,
2(3): 33-42, 3(1): 25-29, 3(2): 53-61,
3(3): 28-37, 4(1): 25-35, 6(3): 22-31,
9(3): 39-51

Computer Music System Interfacing

1(4): 53-60, 2(1): 6-11, 9(4): 8-26

Computer Tape and Live Performance

5(4): 25-29

Conducting Systems

4(1): 8-21

Conference Reports

2(3): 30-32 (UNESCO Workshop, Aarhus, Denmark), 2(3): 43 (1977 International Computer Music Conference [ICMC], La Jolla, USA), 2(4): 21-27 (1978 ICMC, Evanston, USA), 3(3): 38-41 (Colloquio Informatica Musicale, Padua, Italy), 4(3): 66-73 (1980 Audio Engineering Society [AES] Convention, Los Angeles, USA), 5(2): 36-44 (1980 ICMC, New York, USA), 5(3): 7-27 (IRCAM Composer and the Computer, Paris, France), 5(3): 60-61 (Sixth West Coast Computer Faire, San Francisco, USA), 6(2): 11-31 (1981 ICMC, Denton, USA),

6(2): 45-51 (International Music and Technology Conference, Melbourne, Australia),

6(2): 61-64 (Symposium on Small Computers and the Arts [SSCA], Philadelphia, USA),

6(2): 65-71 (Society for Music Theory, Los Angeles, USA), 7(2): 8-35 (1982 ICMC, Venice, Italy), 7(2): 36-42 (International Conference on

Musical Grammars and Computer Analysis, Modena, Italy), 7(3): 25-30 (Second SSCA, Philadelphia, USA), 8(1): 43-47 (Digicon 1983,

Vancouver, Canada), 8(2): 7-23 (1983 ICMC, Rochester, USA), 8(2): 41-47 (Third SSCA, Philadelphia, USA), 8(2): 55-58 (AES, New

York, USA), 8(2): 59-60 (Synthesizer Explosion, New York, USA), 8(3): 51-59 (Bourges Inter-

national Festival of Experimental Music, Bourges, France), 8(4): 55 (International Conference

on Music, Reason, and Emotion, Ghent, Belgium), 9(2): 20-40 (1984 ICMC, Paris,

France), 9(2): 53-59 (Fourth SSCA, Philadelphia, USA)

Conversion. See A/D/A Conversion

Data Structures in Digital Sound Synthesis

2(4): 10-20, 4(3): 3-24, 5(2): 10-19

Digital Audio Editors

6(1): 30-41, 6(1): 66-73, 6(2): 32-44,
7(4): 33-39

Digital Filters and Subtractive Synthesis

1(1): 4-37, 2(2): 38-60, 3(4): 9-13, 6(4): 36-40,
9(3): 13-23

Digital Audio Recording

2(2): 9-12

Digital Signal Processing

1(1): 4-37, 2(1): 38-47, 2(2): 38-60,
3(2): 13-28, 3(4): 9-13, 4(3): 3-24, 5(3): 45-49,
6(1): 7-17, 6(1): 30-41, 6(1): 42-51,
6(1): 52-65, 6(4): 36-40, 7(2): 70-74,
7(3): 6-15, 7(4): 8-26, 9(3): 7-12, 9(3): 13-23

Editors. See Digital Audio Editors, Interactive Score Editors

Filters. *See* Digital Filters and Subtractive Synthesis

Frequency Modulation Synthesis

1(1): 53-55, 1(2): 46-54, 1(4): 39-45,
1(4): 46-50, 1(4): 51-52, 4(1): 43-52

Generative Grammars for Music Composition

3(1): 48-56, 5(1): 51-64

Granular Synthesis

2(2): 61

Hardware. *See* Signal Processing Hardware and Synthesizers

History of Computer Music

4(4): 15-22, 6(4): 10-21, 7(3): 16-24,
9(1): 11-18

Hybrid (Analog and Digital) Systems

1(2): 62-63, 2(1): 6-11, 3(1): 25-29

Input Devices for Digital Synthesizers

1(4): 14-15, 2(3): 16-23, 2(4): 39-45,
4(1): 8-21, 4(4): 23-44, 4(4): 45-59,
6(3): 33-45, 8(1): 22-27, 8(1): 48-51,
8(3): 60-73, 9(2): 49-52

Instrumental Timbre Analysis

1(2): 39-45, 1(3): 12-29, 2(2): 23-31,
3(1): 18-24, 3(3): 25-27

Interactive Composition

1(3): 5-11, 1(3): 30-39, 2(1): 12-18,
2(3): 24-29, 3(1): 25-29, 3(3): 50-53,
3(4): 14-25, 4(4): 4-14, 4(4): 15-22,
4(4): 23-44, 4(4): 45-59, 5(1): 13-33,
5(3): 50-56, 5(4): 30-35, 6(4): 22-35,
7(3): 25-30, 8(1): 22-27, 8(1): 48-51,
8(2): 41-47, 8(3): 60-73, 8(4): 43-44,
9(1): 29-38, 9(2): 53-59, 9(3): 39-51,
9(3): 52-67

Interactive Score Editors

3(4): 14-25, 5(3): 50-56

Interviews

2(3): 11-15 (G. M. Koenig), 3(4): 50-57 (H.

Cohen), 4(3): 25-39 (M. Minsky), 4(4): 15-22
(M. Mathews), 6(4): 10-21 (J. A. Moorer),
7(3): 16-24 (P. Lansky), 7(4): 40-44 (D. Rosen-
boom), 8(4): 45-54 (R. Reynolds, J. Yuasa, C.
Wuorinen), 9(1): 19-28 (C. Barlow), 9(2): 41-48
(S. Shaff)

Karplus-Strong Synthesis. *See* Plucked-String and
Drum Timbres Synthesis

Languages. *See* Programming Languages and Music
Languages

Linear Prediction Synthesis

1(1): 4-37, 3(3): 6-11, 3(4): 9-13, 4(1): 36-42,
5(3): 45-49

Linear Sweep Synthesis

6(3): 65-71

Microprocessor Use in Sound Synthesis

1(2): 30-35, 1(2): 36-38, 1(2): 62, 3(1): 14-17

MIDI and Its Applications

8(4): 43-44, 9(2): 60, 9(3): 52-67, 9(4): 8-26

Music Analysis by Computer

4(2): 26-36, 4(2): 41-59, 4(2): 66-72

Music Composition, Music Theory, and Computers

3(3): 50-53, 5(2): 45-61, 5(4): 7-21,
5(4): 54-65, 7(1): 25-36, 8(4): 35-42

Music Languages

2(1): 19-23 (INV), 2(1): 12-18 (PLAY),
3(1): 30-41 (PILE), 4(1): 25-35 (SSP),
5(1): 13-33 (4CED), 5(1): 34-50 (MUSBOX),
5(1): 51-63 (GGDL), 5(4): 54-65 (Project One
and Project Two), 6(1): 18-29 (Cscore and
Cmusic), 7(1): 11-20 (Pla), 8(3): 15-31
(CHANT), 8(3): 32-50 (FORMES), 8(4): 20-34
(Flavors Band), 9(1): 45-58 (TUTOR),
9(3): 39-51 (FM Music Macro)

Music Printing by Computer

1(2): 55-60, 1(4): 24-31, 1(4): 32-38,
5(3): 57-59, 7(1): 21-24

Musical Scale Systems

4(4): 60-65, 4(4): 66-84

Nonlinear Distortion Synthesis. *See* **Waveshaping Synthesis**

Optical Disks for Digital Audio

9(2): 9-19

Performance. *See* **Computer Tape and Live Performance**

Phase Correction in Digital Audio

8(4): 13-19

Plucked String and Drum Timbres Synthesis

7(2): 43-55, 7(2): 56-69

Printing. *See* **Music Printing by Computer**

Programming Languages

2(1): 4-5, 18 (C), 3(1): 8-13 (Pascal), 3(4): 6-8 (Ada), 4(2): 6-13 (LISP), 4(4): 4-14 (Smalltalk), 6(3): 8-21 (Act1), 8(1): 9-21 (Constraint Languages), 9(3): 7-12 (Prolog)

Psychoacoustics

2(1): 24-31, 3(2): 45-52, 3(4): 26-43

Reverberation. *See* **Sound Spatialization and Reverberation**

Ring Modulation Synthesis

4(1): 43-52

Scales. *See* **Musical Scale Systems**

Signal Processing. *See* **Digital Signal Processing**

Signal Processing Hardware and Synthesizers

1(1): 4-37, 1(1): 38-45, 1(2): 4-25, 1(2): 26-29, 1(2): 36-38, 1(4): 5-6, 1(4): 7-9, 1(4): 10-13, 2(1): 48-59, 2(2): 32-37, 2(4): 28-38, 3(1): 14-17, 3(3): 16-24, 3(3): 28-37, 3(4): 44-49, 5(1): 4-12, 5(2): 20-28, 5(3): 62-73, 5(4): 52-60, 6(3): 22-32, 7(1): 44-65, 8(1): 28-42, 8(2): 59-60,

9(1): 45-58, 9(3): 24-38, 9(3): 39-51. *See also* "Products of Interest" section in each issue.

Software for Synthesizer Control

1(4): 16-21, 1(4): 22-23, 5(1): 13-33, 5(1): 34-50

Sound Spatialization and Reverberation

1(3): 48-52, 2(3): 33-42, 3(2): 13-28, 6(1): 52-65, 7(3): 6-15

Sound Synthesis Techniques. *See* **Tutorials on Sound-Synthesis Techniques**

Sound Synthesis by Simulation of Instrumental Mechanisms

1(1): 38-45, 3(2): 35-44

Stochastic Algorithms

3(3): 12-15, 4(1): 53-81, 5(2): 45-61, 7(1): 25-36

Studio Reports

1(2): 55-60, 6(1): 18-29, 9(1): 45-58

Subtractive Synthesis. *See* **Digital Filters and Subtractive Synthesis**

Synthesizers. *See* **Signal Processing Hardware and Synthesizers**

Time-Domain Formant-Wave-Function Synthesis

8(3): 9-14, 8(3): 15-31

Theatrical Automata

6(4): 22-35

Tutorials on Mathematics of Digital Signal Processing

2(1): 38-47, 2(2): 38-60

Tutorials on Sound-Synthesis Techniques

2(1): 32-37, 3(2): 29-34, 3(3): 6-11, 3(4): 9-13, 4(1): 36-42, 6(1): 7-17, 7(4): 8-26, 9(3): 13-23

Video Recorders

9(3): 68-79

VLSI (Very-large-scale-integrated) Circuits for Digital Signal Processing
5(2): 20-28

Walsh Function Synthesis
3(1): 42-47

Waveshaping Synthesis
3(2): 29-34, 3(2): 35-44, 3(3): 42-49



Nicola Bernardini

Via Urbana, 103
00184 Rome, Italy

Contents of Computer Music Journal Volumes 1-9, 1977-1985

Volume 1, Number 1, February 1977

- "Signal Processing Aspects of Computer Music—A Survey." James A. Moorer. 4-37.
"High Speed Multiplication." John Snell. 38-45.
"Trumpet Algorithms for Computer Composition." Dexter Morrill. 46-52.
"Improved FM Audio Synthesis Methods for Real-Time Digital Music Generation." Steve Saunders. 53-55.

Reviews

Publications

- "Description of Computer Music Publications from Stanford University." 56-58.

Products of Interest (59-63)

Signetics NE570/571 Compressor/Expander;
DBX 202 VCA; Datel DACs; Three Rivers DACs;
Three Rivers PDP-11 Microprogram; AMD Fast
Microprocessor Slices; TRW Multipliers; David
Rosenboom Record; Prentiss Knowlton Record.

Volume 1, Number 2, April 1977

- "Design of a Digital Oscillator which will Generate up to 256 Low-Distortion Sine Waves in Real Time." John Snell. 4-25.
"Table Lookup Noise for Sinusoidal Digital Oscillators." F. Richard Moore. 26-29.

- "Notes on Microcomputer Music." Marc LeBrun. 30-35.
"Desirable Features of an Inexpensive Computer Used for Sound Synthesis." John Snell. 36-38.
"Lexicon of Analyzed Tones (Part I: A Violin Tone)." James A. Moorer, John Grey, and John Snell. 39-45.
"The Synthesis of Complex Audio Spectra by Means of Frequency Modulation." John M. Chowning. 46-54.
"An Integrated Computer Music Software System." Donald Byrd. 56-60.
"Some Thoughts on Microprocessors in Electronic Music." Dave Rossum. 62.

Reviews

Records

- "The Dartmouth Digital Synthesizer." Gareth Loy. 61.

Products of Interest (63-64)

Solid State Music SSM 2020/2040; Serge Modular Music Systems Synthesizers; ALF Products S-100 Bus-compatible Music Synthesis PC Board; Logistics S-100 Bus-compatible Music Synthesis PC Boards; Rotron Fans; Heathkit H11 LSI-11 Microcomputer Kit; Spectra Sonics Audio PC Boards; Proceedings of the West Coast Computer Faire.

Volume 1, Number 3, June 1977

- "Some Reflections on the Nature of the Landscape within which Computer Music Systems are Designed." Joel Chadabe. 5-11.

- "Lexicon of Analyzed Tones (Part II: Clarinet and Oboe Tones)." James A. Moorer, John Grey, and John Strawn. 12-29.
- "The POD System of Interactive Composition Programs." Barry Truax. 30-39.
- "Ripples." Greg Armbruster. 40-47.
- "The Stimulation of Moving Sound Sources." John M. Chowning. 48-52.

Reviews

Records

- "Prentiss Knowlton: *Unplayed by Human Hands*." John Strawn. 53.

Products of Interest (54-64)

AMD AM2903 High-Speed Microprocessor Slice/ 12-bit Microprogram Controller; Monolithic Memories PROMs; TRW 12-bit Multiplier-Accumulator IC; DATEL DACs; TT Low Pass Filters; KEF Speakers; Analog Devices 14-bit ADC; Texas Instruments 16-bit Microprocessor Modules; Technico 16-bit Microprocessor Starter Kit; Mini Micro Mart Scientific Calculator Interface; E-mu Synthesizers; Serge Modular Analog Modules for Spatial Location; Musecom Composition System; Chateau Engineering SCORTOS; PMI Companding DAC; Monolithic Memories 16-bit Multiply-Accumulate IC.

Volume 1, Number 4, November 1977

- "A Portable Digital Sound Synthesis System." H. G. Alles. 5-6.
- "A One-card 64-Channel Digital Synthesizer." H. G. Alles and Giuseppe DiGiugno. 7-9.
- "A Modular Approach to Building Large Digital Synthesis Systems." H. G. Alles. 10-13.
- "A 256-Channel Performer Input Device." H. G. Alles. 14-15.
- "Computer Program to Control a Digital Real-Time Sound Synthesizer." James Lawson and Max Mathews. 16-21.

- "Real-Time Software for a Digital Music Synthesizer." Douglas Bayer. 22-23.
- "Automatic Music Transcription." Martin Piszczalski and Bernard A. Galler. 24-31.
- "On the Transcription of Musical Sound by Computer." James A. Moorer. 32-38.
- "Organizational Techniques for C:M Ratios in Frequency Modulation." Barry Truax. 39-45.
- "The Simulation of Natural Instrument Tones using Frequency Modulation with a Complex Modulating Wave." Bill Schottstaedt. 46-50.
- "A Derivation of the Spectrum of FM with a Complex Modulating Wave." Marc LeBrun. 51-52.
- "Towards a Theory of Interfaces for Computer Music Systems." Otto Laske. 53-60.

Products of Interest (61-64)

Solid State Music \$10 Oscillator IC and \$7.50 Envelope Generator IC; Analog Devices 16-bit DAC1136K; TRW TDC1010J 100 nsec 16x16-bit Multiplier; Digital Equipment Corporation LSI-11/2 card; Zilog, Intel, Mostek, TI, Fairchild, GIC, National Semiconductor and Motorola 16-bit Microprocessors.

Volume 2, Number 1, July 1978

- "Machine Tongues I [The C programming language]." Curtis Abbott. 4-5.
- "Microcomputer to Synthesizer Interface for a Low-Cost System." David Oppenheim. 6-11.
- "An Introduction to the Play Program." Joel Chadabe and Roger Meyers. 12-18.
- "A Software Approach to Interactive Processing of Musical Sound." Curtis Abbott. 19-23.
- "Perception of Spectral Modifications on Orchestral Instrument Tones." John W. Gordon and John M. Grey. 24-31.
- "How Does a Computer Make Music." James A. Moorer. 32-37.
- "An Introduction to the Mathematics of Digital Signal Processing. Part I: Algebra, Trigonometry, and the Most Beautiful Formula in Mathematics." F. Richard Moore. 38-47.

"A Recipe for Homebrew ECL." Chuck Hastings. 48-59.

Reviews

Records

"Sonic Landscapes by Barry Truax and *Studies for Trumpet and Computer* by Dexter Morrill." Gareth Loy. 60-61.

Products of Interest (62-64)

Zilog Z8000; Sequential Circuits Inc. Prophet 5; E-mu Systems \$100 Synthesizer Voice Kit; Baskin, Bissot and Assoc. High-Quality VCA; Micor Inc. Coupland Digital Synthesizer; New England Digital Synclavier I.

Volume 2, Number 2, September 1978

"Machine Tongues II [Programming]." Curtis Abbott. 4-6.

"The Error-Correcting Scheme in the 3M Digital Audio Mastering System." Robert Youngquist. 9-12.

"A Composer's Notes on the Development and Implementation of Software for a Digital Synthesizer." Neil B. Rolnick. 13-22.

"Lexicon of Analyzed Tones (Part III: The Trumpet)." James A. Moorer, John Grey, and John Strawn. 23-31.

"The Egg: A Purely Digital Real-Time Polyphonic Sound Synthesizer." Michael Manthey. 32-37.

"An Introduction to the Mathematics of Digital Signal Processing. Part II: Sampling, Transforms, and Digital Filtering." F. Richard Moore. 38-60.

"Automated Granular Synthesis of Sound." Curtis Roads. 61.

Reviews

Publications

"Marching to a Different Ratio [*Interval* and *Xenharmonikon*]." Curtis Abbott. 7-8.

Products of Interest (62-64)

Intel 8086, Zilog Z8000, Motorola MC68000 Comparison; American Microsystems Inc. S2811 Signal Processing Chip.

Volume 2, Number 3, December 1978

"Machine Tongues III [Data structures]." Curtis Abbott. 7-9.

"An Interview with Gottfried Michael Koenig." Curtis Roads. 11-15.

"A Digital Sound Synthesizer Keyboard." Kurt H. Andersen. 16-23.

"Music for an Interactive Network of Microcomputers." John Bischoff, Rich Gold, and Jim Horton. 24-29.

"The Unesco Workshop on Computer Music at Aarhus, Denmark." Curtis Roads. 30-32.

"A Computer-controlled Sound Distribution System for the Performance of Electroacoustic Music." Guy Fedorkow, William Buxton, and K. C. Smith. 33-42.

"Papers from the 1977 International Computer Music Conference." 43.

"A Critical Look at Microprocessors—The MC68000." Curtis Roads. 44-46.

Reviews

Publications

"Faire." Curtis Roads. 10.

Products of Interest (61-63)

Interactive Systems Corp. UNIX Workbench and C Language for the VAX; 3M Electronic Editing for Digital Mastering System; Advanced Micro Devices Am9511 Floating Point Arithmetic Chip; National Semiconductor Series 200 Computers; Alpheus Music Corporation Score Paper and Music Writing Supplies; Fairlight Instruments QASAR M8 Digital Synthesizer.

Volume 2, Number 4, December 1978

- "The Use of Hierarchy and Instance in a Data Structure for Computer Music." William Buxton, William Reeves, Ronald Baecker, and Leslie Mezei. 10-20.
- "A Report on the 1978 International Computer Music Conference." Curtis Roads. 21-27.
- "An Introduction to the SSSP Digital Synthesizer." William Buxton, E. A. Fogels, Guy Fedorkow, Lawrence Sasaki, and K. C. Smith. 28-38.
- "Considering Human Memory in Designing User Interfaces for Computer Music." Otto E. Laske. 39-45.

Reviews

Records

- "New Directions in Music." Gareth Loy. 6.

Publications

- "Walter Zimmerman: *Desert Plants: Conversations with 25 American Composers*." Bruce Pennycook. 7-8.
- "Edward Kobrin: *Computer in Performance*." John Strawn. 8-9.

Products of Interest (46-47)

- 3M Digital Lathe Preview Device; Summagraphic Bit Pad Digitizer; Sony PCM-1 Consumer Model Digital Audio Processor; Tim Orr High Quality DACs and ADCs; Whitesmiths Ltd. C for DEC Operating Systems; Selanar Corp. Graphics for DECwriters.

Volume 3, Number 1, March 1979

- "Machine Tongues IV [Pascal]." Curtis Roads. 8-13.
- "Use of High-Speed Microprocessors for Digital Synthesis." Jean-François Allouis. 14-17.
- "Spectral Surfaces from Performed Music." Martin Piszczalski. 18-24.

- "Microcomputer-controlled Synthesis System for Live Performance." Martin Bartlett. 25-29.
- "PILE—A Language for Sound Synthesis." Paul Berg. 30-41.
- "Microcomputer-controlled Sound Processing Using Walsh Functions." Maurice Rozenberg. 42-47.
- "Grammars as Representations for Music." Curtis Roads. 48-56.

Reviews

Records and Tapes

- "Herbert Brün: *Project Sawdust*." Thomas Blum. 6-7.
- "Jon Appleton: *Music for Synclavier and Other Digital Systems*." Paul Wieneke. 7.

Products of Interest (57-61)

- APL and LISP Engagement; Intel HMOS II Memories; Intersil, Inc. ICL7109 12-bit ADC; Ferris Sound High Quality Lowpass Filter; Serge Modular Music Systems Synthesizers; Analogic Corporation Low-Cost Array Processor; Tim Orr Microspeech Speech Synthesizer; Digital Equipment Corporation PDP-11/23 and LSI-11/23; Intel 2920 Analog Microprocessor; Dataland Scan-Note Music Printing System.

Volume 3, Number 2, June 1979

- "Machine Tongues V [Writing microcode for digital synthesizers]." Curtis Abbott. 6-12.
- "About This Reverberation Business." James A. Moorer. 13-28.
- "A Tutorial on Non-Linear Distortion or Waveshaping Synthesis." Curtis Roads. 29-34.
- "Brass Tone Synthesis by Spectrum Evolution Matching with Nonlinear Functions." James Beauchamp. 35-44.
- "Timbre Space as a Musical Control Structure." David L. Wessel. 45-52.
- "An Automated Digital Synthesis Instrument." S. R. Holtzmann. 53-61.

Reviews

Publications

"New Music Distribution Service." D. Laszlo. 5.

Products of Interest (62)

Sony PCM-3200 24-channel Recorder and DRX-1000 Digital Reverberator; Western Electric UNIX V32 for the VAX; Mikros Systems MK-16 Computer; Burr-Brown DAC71 16-bit High Speed D/A; Analog Devices 14-bit Sample and Hold; Bubbl-Tec Bubble Memory for LSI-11.

Volume 3, Number 3, September 1979

- "An Analysis/Synthesis Tutorial, Part I." Richard Cann. 6-11.
"Controlled Indeterminacy: A First Step Towards a Semi-Stochastic Music Language." John Myhill. 12-15.
"The 4C Machine." James A. Moorer, Alain Chauveau, Curtis Abbott, Peter Eastty, and James Lawson. 16-24.
"Spectral Surfaces from Performed Music, Part 2." Martin Piszczalski. 25-27.
"An Inexpensive Digital Sound Synthesizer." H. G. Alles. 28-37.
"Abstracts from the Third Colloquium on Musical Informatics." 38-41.
"Practical Sound Synthesis Using a Nonlinear Processor (Waveshaper) and a Highpass Filter." James Beauchamp. 42-49.
"A Composing Program for a Portable Sound Synthesis System." Marc Battier. 50-53.

Reviews

Records

- "RISSET." Paul Wieneke. 54.
"Anthology of Dutch Electronic Music, Vol. I." Carl Stone and Curtis Roads. 55.

Publications

"Keynotes 8—Musical Life in the Netherlands (1978/2)." Curtis Roads. 55.

Products of Interest (61-63)

Casheab SYN-10 32-channel Digital Sound Processor; Digital Music Systems DMX-1000; Winchester Disk Technology Review; Digital Audio Disks Technology Review; E-mu Systems Software for the 4060 Synthesizer; EG&G Reticon Discrete-Time Signal Processing Devices; Audio Machinery Corporation Shared Access Memory System.

Volume 3, Number 4, December 1979

- "Machine Tongues VI: ADA—A Complex Language." Curtis Roads. 6-8.
"An Analysis/Synthesis Tutorial, Part II." Richard Cann. 9-13.
"The Evolution of the SSSP Score Editing Tools." William Buxton, R. Sniderman, William Reeves, S. Patel, and R. Baecker. 14-25.
"Hearing Musical Streams." Stephen McAdams and Albert Bregman. 26-43.
"The DMX-1000 Signal Processing Computer." Dean Walraff. 44-49.
"An Interview with Harold Cohen." Curtis Roads. 50-57.

Reviews

Records

- "Computer Music—CNUCE—IEI." Thomas Blum. 58-59.

Volume 4, Number 1, Spring 1980

- "A Microprocessor-based Conducting System." William Buxton, William Reeves, Guy Fedorkov, K. C. Smith, and R. Baecker. 8-21.

- "A Simple Data Reduction Scheme for Additive Synthesis." Lawrence Sasaki and K. C. Smith. 22-24.
- "SSP and Sound Description." Paul Berg, Robert Rowe, and David Theriault. 25-35.
- "An Analysis-Synthesis Tutorial (Part III)." Richard Cann. 36-42.
- "Spectra as Chords." James Dashow. 43-52.
- "A Panoply of Stochastic 'Cannons'." Denis Lorrain. 53-81.

Reviews

Publications

- "Christopher Morgan, editor: *Byte Book of Computer Music*." Richard Poor. 82.

Records

- "Rosenboom/Buchla: *Collaboration in Performance*." G. Groberg. 82-83.
- "*Computer Music from Colgate*." Conrad Cummings. 84-85.

Products of Interest (86-100)

PAiA 8700 Microcomputer for Music; Zilog Z-8000 C Cross-Compiler; Cambridge Development Lab S-100 Bus Graphic Interfaces; Buchla and Associates Touché; Sony 24-Channel Digital Audio Recorder, Digital Editor, Digital Sound Synthesizer; Three Rivers Corp. PERQ Computer; Superscope-Marantz Inc. Pianocorder; Micropolis Corp. S-100 Winchester Disk; Digital Equipment Corp. VAX-11/580 and LSI-VAX; Signal Processing Chips from National and Bell Labs; NEC-Toshiba and NTT Musashino 256K RAM Memories; National Semiconductor 16032 32-bit Microprocessor; Whitesmiths Ltd. Idris and Yourdon Software Unix-like Operating Systems for the Z80; Motorola MC68000 News; MicroDaSys, Technical Systems Consultants, Hemenway Associates MC68000-based Microcomputer Systems; Fairlight CMI Music Composition Language; Con Brio ADS-100 Digital Sound Synthesizer; Eventide Clockworks Real-Time Analyzer; E-mu Sys-

tems Audity 5020 Digitally controlled Analog Synthesizer Board; Gyr Zug Modula and Portal Languages Literature; Music Technology Inc. Crumar GDS Digital Sound Synthesizer; Chrislin Industries LSI-11/23 Desk-top Microcomputer; Digital Sound Corporation DSC-200 Multi-channel Audio Conversion System.

Volume 4, Number 2, Summer 1980

- "Machine Tongues VII: LISP." W. Kornfeld. 6-12.
- "Artificial Intelligence and Music." Curtis Roads. 13-25.
- "Music Analysis by Computer." Bo Alphonse. 26-36.
- "Simulating Musical Skills by Computer." J. Rothgeb. 36-40.
- "A Computer Aid for Schenkerian Analysis." Stephen Smoliar. 41-59.
- "An AI Approach to Tonal Music Theory." J. Meehan. 60-65.
- "On Some Computational Models of Music Theory." John Rahn. 66-72.
- "Toward an Explicit Cognitive Theory of Musical Listening." Otto E. Laske. 73-83.

Volume 4, Number 3, Fall 1983

- "Approximation and Syntactic Analysis of Amplitude and Frequency Functions for Digital Sound Synthesis." John Strawn. 3-24.
- "Interview with Marvin Minsky." Curtis Roads. 25-39.
- "Musical Software: Description and Abstractions." Patrick Greussay. 40-47.
- "Computer Improvisation." Christopher Fry. 48-58.
- "Report from the 1980 Los Angeles Audio Engineering Society Convention (including Digital Sound Synthesizer Review)." John Strawn. 66-73.

Reviews

Publications

- "K. S. Fu: *Syntactic Methods in Pattern Recognition*." John Strawn. 59.

"Günter Schnitzler, editor: *Musik und Zahl*." John Strawn. 59–60.

"Patrick Winston: *Artificial Intelligence*." Christopher Fry. 61–63.

"*Journal of Community Communications*." Curtis Roads. 63–64.

"Nils Nilsson: *Principles of Artificial Intelligence*." Curtis Roads. 64–65.

Products of Interest (74–79)

National Semiconductor 16082 Virtual Memory Microprocessor; Intel Corp. iAPX 432 32-bit Microprocessor and iAPX 286 16-bit Microprocessor; Whitesmiths Ltd. Software Catalog; Motorola MC68000 Support Chips; National Semiconductor Digital Music Synthesis Chip; Mikros Systems MK-16 High-Performance 16-bit Microprocessor; 5-1/4-Inch Winchester Drives; Foonly Inc. Computers; Computer Interface Technology Pensee II Microcomputer; Sequential Circuits Inc. Prophet 5; Color Terminals; Dastek \$7500 400 Mbyte Winchester Disk; Scion Corp. Microangelo Microcomputer Graphic Subsystem; Bell Labs High-Speed Signal Processing Chip; Continental Specialties Corp. Solderable Breadboards; Advanced Micro Devices Z8000 Chip Set; Philips Compact Disk Introduction; Onyx Systems C8002 Z8000-based Microcomputer with UNIX-7.

Volume 4, Number 4, Winter 1980

"Machine Tongues VIII: The Design of a Smalltalk Music System." Glenn Krasner. 4–14.

"Interview with Max Mathews." Curtis Roads. 15–22.

"The Musician-Machine Interface in Digital Sound Synthesis." Stanley Haynes. 23–44.

"The Sequential Drum." Max Mathews with Curtis Abbott. 45–59.

"Tempered Music Scales for Sound Synthesis." M. Yunik and G. W. Swift. 60–65.

"The Group-theoretic Description of 12-Fold and Microtonal Pitch Systems." Gerald J. Balzano. 66–84.

Products of Interest (85–92)

Curtis Electro-Music and PAiA Analog Chips for Audio; Mark Williams Company and Microsoft UNIX Operating Systems; E-mu Systems AUDITY Computer-controlled Polyphonic Synthesizer; Ampersand Prophet Synthesizer Sequencer Link; Digital Microsystems HEX-29 Computer; E-mu 4070 Floppy-Disk Memory Unit for the AUDITY Synthesizer; Brilly Imports Records; Charles River Data Systems LSI-11 Systems; Digital Multimedia Control SBASS Sound Synthesizer for S-100 Microcomputers; New England Digital Corp. Synclavier II; Publison Audio Professional DHM 89 B2 Digital Audio Processing Computer; Mountain Hardware MusicSystem for Apple Computers; Analogic MP1926 DAC; Renaissance Systems LSI-11 and MC68000 Systems; Digital Audio Disks; 3M Digital Tape Recorders with Cross-Fade Capability.

Soundsheet

"Two Fantasies on a Poem by Thomas Campion." Paul Lansky.

"Prismes—Opening Section." Stanley Haynes.

"Examples." James Dashow.

Volume 5, Number 1, Spring 1981

"Synthesizers I Have Known and Loved." James A. Moorer. 4–12.

"The 4CED Program." Curtis Abbott. 13–33.

"Notes on the Implementation of MUSBOX: a Compiler for the System Concepts Digital Synthesizer." D. Gareth Loy. 34–50.

"Using Generative Grammars for Music Composition." S. R. Holtzmann. 51–64.

Reviews

Publications

"Wayne Bateman: *Introduction to Computer Music*." John Strawn. 65–73.

- "Anthology of Dutch Electronic Tape Music, Volume 2." Thomas Blum. 74-76.
 "Computer Generations." Conrad Cummings. 77.
 "Herbert Bruderer: Nichtnumerische Informationsverarbeitungs." John Strawn. 78-79.

Products of Interest (80-83)

Uniflex OS for MC68000 and 6809; Digital Equipment Corp. LSI-VAX; Microsoft Xenix OS; Digital Equipment Corp. VAX-11/750; Zilog Z9000; Memorex, 3M, Qantex, Irwin International, Kennedy Winchesters, Micro-Winchesters and Data Cartridges; Houston Instruments HIPAD Digitizer; Mitsubishi Digital Audio Tape Recorders; MicroDaSys MC68000-based Computer System; Digital Engineering VT-100 Graphic Extensions; TASA Touch Activated Switch Arrays.

Volume 5, Number 2, Summer 1981

- "Timbre and the Perceptual Effects of Three Types of Data Reduction." Gerard R. Charbonneau. 10-19.
 "Notes on Very-Large-Scale Integration and the Design of Real-Time Digital Sound Processors." Mark Kahrs. 20-28.
 "Computer-plotted Graphics." Herbert Brün. 29-35.
 "Report on the International Computer Music Conference, Queens College, 1980." John Strawn, with Curtis Abbott, Thom Blum, Nan Earle, Dorothy Gross, Laurie Hollander, and Leland Smith. 36-44.
 "Compositional Applications of Stochastic Processes." Kevin Jones. 45-61.

Reviews

Publications

- "IEEE: Programs for Digital Signal Processing." Julius O. Smith III. 62-65.
 "Sonus." R. Blevins. 66.
 "The CAMEO Dictionary of Creative Audio Terms." Thom Blum. 67.

Records

- "Parmegiani: *De Natura Sonorum*." Thom Blum. 68-70.

Products of Interest (71-77)

MUSIC 11 Digital Sound Synthesis Software; Apollo Domain Computers; LMI and Symbolics LISP machines; Ontrax Corp. Dual-headed Winchesters Disks; Voicetek Cognivox Speech Recognition for Microcomputers; Sony Digital Audio Editor; Crown International Audio Amplifiers; Chromatics CGC-7900 MC68000-based Color-Graphics Computer; Terak 8600 Color Graphics Microcomputer; Burr-Brown and Hybrid Systems High-Resolution Digital-to-Analog Converters; Digital Audio Disk Update.

Volume 5, Number 3, Fall 1981

- "Report from the IRCAM Conference: The Composer and The Computer." Curtis Roads. 7-27.
 "Music, Mind, and Meaning." Marvin Minsky. 28-44.
 "Synthesis of Timbral Families by Warped Linear Prediction." Paul Lansky and Kenneth Steiglitz. 45-49.
 "Scope in Interactive Score Editors." William Buxton, S. Patel, W. Reeves, and R. Baecker. 50-56.
 "A Note on Music Printing by Computer." Curtis Roads. 57-59.
 "Report from the Sixth Annual West Coast Computer Faire." Jim McConkey. 60-61.
 "Developing a Commercial Digital Sound Synthesizer." S. Jerrold Kaplan. 62-73.

Reviews

Publications

- "John Askill: *Physics of Musical Sound*." F. Richard Moore. 74.
 "Douglas R. Hofstadter: *Gödel, Escher, Bach*." Stephen W. Smoliar. 74-79.

- "Hofstadter's Reply to Smoliar." Douglas R. Hofstadter. 79-81.
 "Joseph J. Carr: *Microcomputer Interfacing Techniques: A/D and D/A*." Jim McConkey. 81.

Records and Installations

- "Hubert S. Howe, Jr.: *Computer Music*." Bruce Pennycook. 82-83.
 "Liz Phillips: *Windspun*." Curtis Roads. 84.
 "Daniel Arfib: *Musique Numerique*, Larry Austin: *Hybrid Musics*, Easley Blackwood: *Twelve Microtonal Etudes for Electronic Music Media*." Conrad Cummings. 84-86.
 "Jerry Hunt." Jared L. Manley. 86-87.

Products of Interest (88-96)

Digital Music Systems MUSIC 1000 Language for the DMX 1000 Synthesizer; Cassettes from IRCAM/Radio France; *Lambda*, the VLSI Design Magazine; Supersoft Associates LISP for the TRS-80 Microcomputer; Analogic Corp. MP1926A DAC, MP2735 ADC and SHAD-2; Digital Audio Disks and Cassettes; Casio Portable Polyphonic Digital Keyboards; Intel iAPX 86/20 and 88/20 Numerical Data Processors; NEDCO Synclavier II Terminal Support; Quaquaversal Transmission; MegaSystems Synthesis Control System; Syntauri Ltd. alphaSyntauri for Apple II Computers; Sony Digital Audio Advances; E-mu Systems Emulator; 68000-based Computer Systems; Passport Designs' Soundchaser; The Mike Shop; Floating Point Systems Array Processors; Lingua Press; Mountain View Press' FORTH Publications.

Volume 5, Number 4, Winter 1981

- "Composing with Computers: A Progress Report." Lejaren Hiller. 7-21.
 "Mortuos Plango, Vivos Voco: A Realization at IRCAM." Jonathan Harvey. 22-24.

- "Loudspeakers and Performers: Some Problems and Proposals." Dexter Morrill. 25-29.
 "Automated Composition and Composed Automation." Giuseppe Englert. 30-35.
 "Dreamsong: The Composition." Michael McNabb. 36-53.
 "Composition Theory in Koenig's Project One and Project Two." Otto Laske. 54-65.
 "Composing from a Geometric Model: *Five-Leaf Rose*." Gary S. Kendall. 66-73.

Reviews

Publications

- "David Keane: *Tape Music Composition*." Thom Blum. 74.
 "INA/GRM: *Repertoire Acousmatique 1948-1980*." Curtis Roads. 75.
 "Marc Battier and Barry Truax, editors: *Computer Music, Composition Musicale Par Ordinateur. Report on an International Project including a Workshop at Aarhus, Denmark in 1978*." D. Laszlo. 75.
 "Sandra Tjepkema: *A Bibliography of Computer Music: A Reference for Composers*." R. L. Blevins. 75.
 "Gottfried Michael Koenig: *Protocol*." Curtis Roads. 76.
 "Alfred Blattner: *Instrumentation/Orchestration*." Curtis Roads. 77.
 "E. Jansson and J. Sundberg: *Sound Generation in Winds, Strings, Computers*." John Strawn. 78.
 "Audio Engineering Society Anthologies." John Strawn. 79.

Records

- "John Duesenberry: *4 Movements for Tape and Prepared Piano*." Martin Brody. 80.
 "Morton Subotnick: *A Sky of Cloudless Sulfur/After the Butterfly*." Curtis Roads. 81.
 "Computer Music from Colgate, Volume II." Peter Child. 82-83.
 "Matthew Young: *Recurring Dreams*." Jeffrey Risberg. 84.

Products of Interest (85-90)

Casheab Demonstration Tape; MIT Report on Data Flow and Music; KineticSystems Corp. Prism Synthesizer; Lexicon Audio Time Compressors; Genisco Computer Corp. Spacegraph; NEC Graphics Display Controller Chip; JBL 4430 and 4435 Bi-radial Studio Monitors; Syntauri Corp. alpha-Plus Software for alphaSyntauri; JVC Digital Audio Products; Burr-Brown Corp. PCM75 16-bit ADC for Audio; Interaction Systems TT-100 Touch-Sensitive Terminal.

Volume 6, Number 1, Spring 1982

- "The Computer as a Sound Processor: A Tutorial." Stanley Haynes. 7-17.
"The Computer Audio Research Laboratory at UCSD." F. Richard Moore. 18-29.
"Toward an Intelligent Editor of Digital Audio: Recognition of Musical Constructs." Chris Chafe, Bernard Mont-Reynaud, and Loren Rush. 30-41.
"Designing Multi-Channel Reverberators." John Stautner and Miller Puckette. 52-65.
"The N.Y.I.T. Digital Sound Editor." Michael J. Kowalski and Andrew Glassner. 66-73.

Reviews

Publications

- "Trends & Perspectives in Signal Processing." Curtis Roads. 74.

Products of Interest (75-78)

Hitachi PCMV100 Digital Audio Recorder; InfoPro Systems UNIX Products; Ethernet Products; Modifying the Casiotone Instruments; Digital Music Systems DMX-1010 Computer Sound Processor; Fostex 350 Miniature Mixer; Burr-Brown PCM50 DAC; Japan Synthetic Rubber Company Pressure-Sensitive Conductive Rubber; Electronic Arts Research Algorithmic Music Language;

NEDCO Synclavier II Digital Analysis/Synthesis; Sphere Electronics Digital Mixing Products.

Volume 6, Number 2, Summer 1982

- "Report on the 1981 International Computer Music Conference." John Strawn et al. 11-31.
"Objed and the Design of Timbral Resources." William Buxton, S. Patel, W. Reeves, and R. Baecker. 32-44.
"Report on the International Music and Technology Conference." Hubert S. Howe, Jr. 45-51.
"The RTM5 Signal Processing Architecture." Daniel W. Cody. 52-60.
"Report on the National Meeting of the Society for Music Theory." Jonathan W. Bernard and Martin Brody. 65-71.
"Comments on University Instruction in Computer Music." Jacques Arveiller. 72-78.

Reviews

Publications

- "Hal Chamberlin: *Musical Applications of Micro-processors*." Thom Blum. 79-82.
"OP." Jared L. Manley. 83.
"Patrick Henry Winston and Berthold Klaus Paul Horn: *Lisp*." Curtis Roads. 84.

Exhibition

- "Soundings." T. X. Monda. 84-85.

Products of Interest (86-91)

Signal Processing Technology Software; Valid Logic Systems SUN Terminal; EMT 251 Digital Reverberator; MicroDaSys MiniFrame 68000 System; YAMAHA GS-1 Digital Synthesizer; Analog Devices AD7546 Low-Cost Monolithic 16-bit DAC; National Semiconductor 20-bit ADC; Digital Music Systems DMX-1010 Computer Sound Processor; Con Brio Scorewriter; Passport Designs

Soundchaser Products; Canon LPB-10 Laser Printer; 32-bit Microprocessors; Folkways Record Catalog; Hazelcom McLeyvier Music Transcriber; Neve DSP Digital Mixing Console; JVC Digital Audio Cassette Deck.

Volume 6, Number 3, Fall 1982

- "Machine Tongues IX: Object-oriented Programming." Henry Lieberman. 8-21.
"The Lucasfilm Audio Signal Processor." James A. Moorer. 22-31.
"The Lucasfilm Real-Time Console for Recording Studios and Performance of Computer Music." John Snell. 33-45.
"Crystals: Recursive Structures in Automated Composition." Charles Ames. 46-64.
"Linear Sweep Synthesis." Maurice Rozenberg. 65-71.
"Timbral Construction in Arras as a Stochastic Process." Barry Truax. 72-77.

Reviews

Publications

- "A. Barr and E. Feigenbaum: *The Handbook of Artificial Intelligence*." Curtis Roads. 78.
"M. Kondracki, M. Stankewicz, and F. Weiland: *International Electronic Music Discography*." D. Laszlo. 78.

Records

- "Charles Dodge: *Synthesized Voices*." Curtis Roads. 79.
"Laurie Spiegel: *The Expanding Universe*." Otto Steinhart. 80.
"G. Todd, D. Semegen, T. Wells, and J. Greenwald: *Satan's Sermon and Other Electronic Fantasies*." Gregory Patrick Garvey. 81.
"David Behrman: *On the Other Ocean; Figure in a Clearing*." Gregory Patrick Garvey. 81.

Exhibitions

- "Paul Earls: *Modulations*." Gregory Patrick Garvey. 82.
"Liz Phillips: *Sunspots*." David Ahlstrom. 83-85.

Products of Interest (86-89)

Sony PCM-F1 Portable Digital Audio Recorder; Texas Instruments TMS 320 Signal Processing Chip; IEEE Proceedings of the Symposium on Small Computers and the Arts; Con Brio ADS 200-R Portable Digital Synthesizer; Penny & Giles 3000 Series Faders; MC68000 Microprocessor Developments; Crystal Musicworks Composium Directory of New Music; New Features of the E-mu Systems Emulator; Proceedings of the International Music and Technology Conference; Alpha Audio Sonex Acoustic Foam.

Volume 6, Number 4, Winter 1982

- "A Conversation with James A. Moorer." Curtis Roads. 10-21.
"From Computer Music to the Theater: The Realization of a Theatrical Automaton." Sergio Cavaliere, Loreto Papadia, and Pasquale Parascandolo. 22-35.
"A Constant-Gain Digital Resonator Tuned by a Single Coefficient." Julius O. Smith and James B. Angell. 36-40.

Reviews

Publications

- "Barry Schrader: *Introduction to Electro-acoustic Music*." Curtis Roads. 41.
"P. Patton and R. Holoien: *Computing in the Humanities*." Willie Hegel. 42.
"John Withney: *Digital Harmony*." R. Berger. 43-44.
"Johan Sundberg, editor: *Research Aspects on Singing*." Curtis Roads. 45.

Records

- "Dartmouth Composers: *Music from Dartmouth*." Conrad Cummings. 46.
"Dary John Mizelle: *Polyphonies/Spectra/Primavera*." Gregory Patrick Garvey. 47.

Products of Interest (48-50)

Association for the Promotion of New Music Catalog; Syntauri METATRAK 16-track Recorder/Sequencer for alphaSyntauri; G. K. Hall Music Reference Books; Special Publications Group Audio, Video and Staging Yearbooks; SUN Workstation Update; Elsevier Sequoia S.A. *Interfaces in Computing*; Buchla 400 Digital Sound Synthesizer; Forward Technology Inc. Gateway Workstation; Gray Laboratories BASYN Minstrel Synthesizer; Digital Equipment Corporation VAXStation VS-100; New Programs for Ursa Major 8X32 Digital Reverberator; Group Technology Circuits *Electronic Music Circuits* Textbook; Grid Systems Briefcase Compass Computer.

Volume 7, Number 1, Spring 1983

- "Pla: A Composer's Idea of a Language." Bill Schottstaedt. 11-20.
"Gregory's Scribe: Inexpensive Graphics for Pre-1600 Music Notation." David Crawford and Jon Zeef. 21-24.
"Automatic Composition. Experiments with Self-Similar Music." Tommaso Bolognesi. 25-36.
"Musical Performance: A Synthesis-By-Rule Approach." Johan Sundberg, Anders Askenfelt, and Lars Fryden. 37-43.
"Hardware Design of a Digital Synthesizer." David Parks. 44-65.

Reviews

Publications

- "Ernest Robson and Larry Wendt: *Phonetic Music/Electronic Music*." David Keane. 66.

"Henri Chopin: *Poésie Sonore Internationale*." Curtis Roads. 67.

"Alvise Vidolin and Nicoletta Polo, editors: *Bollettino 1*." Curtis Roads. 68.

"James Dashow and Paul Lansky: *Computer Directions*." E. Amelia Rogers. 68-69.

"Melby, Perera, Grippe, and Johnson: *International Electronic Music*." W. Holden. 70.

"Conlon Nancarrow: *Complete Studies for Player Piano—The Music of Conlon Nancarrow*." David Place. 71.

"Columbia-Princeton Electronic Music Center: *Tenth Anniversary Celebration*." Kimball P. Stickney. 72.

"Louis and Bebe Barron: *Forbidden Planet*; Pierre Henry: *Le Microphone Bien Temperé*." Curtis Roads. 73-75.

"David Rosenboom: *Future Travel*." Curtis Abbott. 76-77.

Products of Interest (78-79)

High Performance Review; epsilon Music Software; Disc Instruments Inc. 200 Series Low-Cost Trackball Controller; 360 Systems Digital Keyboard; Analogic Corporation AP500 Array Processor; Digital Equipment Corporation VAX 11/730.

Soundsheet

"Sundberg, Askenfelt, and Fryden: Sound Examples."

"Charles Dodge: *Any Resemblance Is Purely Coincidental*—Excerpts."

"Jean-Claude Risset: *Songes*—Three Excerpts."

Volume 7, Number 2, Summer 1983

"Report on the 1982 International Computer Music Conference." Thomas Blum et al. 8-35.

"Report on the International Conference on Musical Grammars and Computer Analysis." Curtis Roads. 36-42.

"Digital Synthesis of Plucked-String and Drum Timbres." Kevin Karplus and Alex Strong. 43-55.

"Extensions of the Karplus-Strong, Plucked-String Algorithm." David A. Jaffe and Julius O. Smith. 56-69.

"A Report on SPIRE: An Interactive Audio Processing Environment." Curtis Roads. 70-74.

Reviews

Publications

"Manfred Clynes, editor: *Music, Mind, and Brain: The Neuropsychology of Music*." Curtis Roads. 75.

"Diana Deutsch, editor: *The Psychology of Music*." David Horowitz. 76.

Records

"Jon Appleton: *Four Fantasies for Synclavier*." Laurie Spiegel. 77.

"Dennis Smalley: *The Pulse of Time*." John P. Stautner. 78.

"Michael Redolfi: *Immersion; Pacific Tubular Waves*." David Place. 79.

"Larry Austin, et al.: *Computer Music*." Horace M. Dixon. 80.

"Francois Bayle: *Tremblement de Terre Très Doux*." George Stetten. 80.

Products of Interest (81-85)

Opus One Catalog; American Music Discography; Apple Macintosh; 3Com Corp. Multibus Ethernet Controller; Syntauri Scoring Aid; Mouse Systems M-1 Mice; Audix Assignable Audio Console; Soundstream Digital Audio Editing; Lexicon PCM-42 Digital Delay Processor; *American Music Journal*; Lisp Machines—LMI, Symbolics, and Xerox.

Volume 7, Number 3, Fall 1983

"A General Model for Spatial Processing of Sounds." F. Richard Moore. 6-15.

"Interview with Paul Lansky." Curtis Roads. 16-24.

"The Second Annual Symposium on Small Computers in the Arts." Jim McConkey. 25-30.

"EMPS: A System for Graphic Transcription of Electronic Music Scores." Goffredo Haus. 31-36.

Reviews

Publications

"Paul Griffiths: *Cage*." Joel Chadabe. 37.

"*Ear Magazine East*." R. L. Blevins. 38.

Records

"Karlheinz Stockhausen: *Der Jahreslauf*." Ernest Lee Hammer. 39.

"Oskar Sala: *Elektronische Impressionen*." Curtis Roads. 39.

"Barry Truax: *Androgyne—Electroacoustic and Computer Music by Barry Truax*." David F. Place. 40.

"Joel Chadabe: *Rhythms*." Edward LePoulin. 41.

"*Electronic Art Ensemble*." Curtis Roads. 42.

Products of Interest (43-47)

Digital Multi-Media Control SBASS-2 DAC Controller System; Pixel Inc. 80 Workstation; Xerox Corp. Mockingbird Report; Digital Audio Recorders for Home Use; EMT 540 Digiphon; Denon Corp. DN-036ED Random Access PCM Editing System; DBX 700 Digital Audio Processor; Buchla & Associates 406 Digital Synthesizer; Roland CMU-800R Compu Music Sound Synthesizer; Larking Movement Drum Computer; Burr-Brown PCM52JG-V and PCM53JG-V DACs; F. V. Hunt's *Electroacoustics* Book; Datatronic Ltd./EMS Synthi 100 Update.

Volume 7, Number 4, Winter 1983

"A Tutorial on Digital Sound Synthesis Techniques." Giovanni De Poli. 8-26.

"Aesthetic Integration of Computer-Composed Scores." Gottfried Michael Koenig. 27-32.

- "Gcomp: Graphic Control of Mixing and Processing." Colin Banger and Bruce Pennycook. 33-39.
 "Interview with David Rosenboom." Larry Polansky. 40-44.
 "Stylistic Automata in *Gradient*." Charles Ames. 45-56.

Reviews

Publications

- "A. W. J. G. Ord-Hume, guest editor: *Early Music*." Curtis Roads. 57.
 "Ronald Pellegrino: *The Electronic Arts of Sound and Light*." John Strawn. 58-59.
 "Allen Strange: *Electronic Music—Systems, Techniques, and Controls*, 2nd ed." D. Gareth Loy. 60.
 "Edward C. Carterette and Morton P. Friedman, editors: *Handbook of Perception*." Ernest Lee Hammer. 61.
 "Myron Krueger: *Artificial Reality*." David Place. 62.

Records

- "Jean Piché: *Heliograms*." Gary Kendall. 63.
 "Clarence Barlow: *Çoğluotobüsişletmesi*." Curtis Abbott. 66-69.
 "Ivan Tcherepnin: *Electric Flowers*." Gregory P. Garvey. 70-72.

Products of Interest (73-78)

TMS320 Software; The MIDI Standard; YAHAMA DX Series Digital Synthesizers; Marice Stith Recording Services; Magnavox/Philips Compact Audio Disk Players; Ariel RTA 331 Spectrum Analyzer and Sound Recorder for the IBM PC; Excelsior s.p.a. Digiszyer Digital Accordion; E-mu Systems Cumulator Drum Computer; Tandy Corp. CGP-115 Low-Cost Printer; Matsushita Erasable Optical Disk; TEAC FXZ-100 Digital Tape Recorder; Professional Audio Buyers Guide; Tab Books; Kurzweil 250 Digital Keyboard Instrument; Digital Multiplier Chips.

Volume 8, Number 1, Spring 1984

- "Machine Tongues X: Constraint Languages." David Levitt. 9-21.
 "Interactive Composing: An Overview." Joel Chadabe. 22-27.
 "Dynamic Timbre Control for Real-Time Digital Synthesis." Keith Schindler. 28-42.
 "Digicon '83." Julie [Kathleen J.] White. 43-47.
 "Live and in Concert: Composer/Performer Views of Real-Time Performance Systems." Jon Appleton. 48-51.

Reviews

Publications

- "H. Nakajima, T. Doi, J. Fukuda, and A. Iga: *Digital Audio Technology*." Curtis Roads. 52.
 "Jonathan Dunsby, editor: *Music Analysis*." Curtis Roads. 53.

Records

- "IRCAM—*Un Portrait*." Paul Wieneke. 53.
 "Zoltan Pongracz: 144 Sounds, Electronic Music." Curtis Roads. 56.
 "Elliott Schwartz: *Extended Piano*." Gregory Patrick Garvey. 57-58.
 "Pietro Grossi: *24 Capricci by Niccolò Paganini*." Barry Truax. 59-60.

Products of Interest (61-64)

Motorola 68020 32-bit Microprocessor; DSP Systems AP-4 Multibus Array Processor; Softsearch International Software-Locator Service; Intelligent Software Systems C Graphics Software Package; Electronic Arts Research DACs and Interface Buffer; Agfa-Gevaert PEM297D Digital Audio Tape; Crown International, Inc. Delta Omega 2000 Power Amplifier; Mark Williams Company Coherent Unix-Compatible OS for IBM PC; William Kaufmann, Inc. *Artificial Intelligence Coloring Book*; Microsoft Corp. Xenix 3.0 OS for

IBM PC, Radio Shack 5000 and Apple Lisa; Electro-Harmonix 64-Second Digital Looping Recorder; ADCs and DACs for Microcomputers; Decillionix DX-1 Sound Processor for Apple; Intech ADC and DAC Boards for Digital Audio; Measurement Systems Inc. 531 Joystick with Push-Button Handle; Digital Equipment Corp. MicroVAX and VAX-11/725; Academic Press Paperback Edition of *The Psychology of Music*; Soft Stuff Music Set Analysis; UMI Research Press Studies in Musicology Book Series.

Volume 8, Number 2, Summer 1984

- "Report on the 1983 International Computer Music Conference." Robert Gross et al. 7-23.
- "A Tutorial on the Construction and Operation of a High-Quality Audio Conversion System." Louis C. Barbeau and M. J. Corinthios. 24-40.
- "Report on the Third Annual Symposium on Small Computers in the Arts." Jim McConkey. 41-47.
- "The Making of *Octuor*." Horacio Vaggione. 48-54.
- "Report on the 74th Audio Engineering Society Convention." Kathleen J. White. 55-58.
- "Report from the Synthesizer Explosion." Jim McConkey. 59-60.

Reviews

Publications

- "Jaron Lanier: *Moondust*." Paul Demarinis. 61.
- "*Musicworks*." Curtis Roads. 61.

Records

- "Ron Kuivila and Nicolas Collins: *Going Out with Slow Smoke*." Jaron Lanier. 62.
- "Hans Werner Henze: *Tristan*." R. H. Bales. 63.
- "Giuseppe Englert: *Juralpyroc* . . . GZ 50." Joel Chadabe. 64.
- "Pierre Henry and Gilbert Artman: *Urban Sax/Paradise Lost*." Ernest Lee Hammer. 64.
- "Randall, Ceely, and Del Monaco: *Electronic Music*." David Keane. 65-68.

Products of Interest (69-73)

1750 Arch Records Record by Michael McNabb; RolandCorp Piano Plus HP-400 Computer; LTX Corp. *Testing PCM Audio Circuits* Brochure; Electronic Arts Music Construction Set Software Package; *Red Shift* Magazine; Gold Line Digital Spectrum Analyzer; 1984 New Music Distribution Service Catalog; Passport Designs Polywriter Music Printing Option; Seiko Digital Synthesizers; Sequential Circuits Model 64 MIDI Sequencer; W. H. Freeman and Co. *The Science of Musical Sound* Book; E-mu Systems Drumulator Options; Alice AS5 Audio Switching Matrix; Polhemus Navigational Sciences 3SPACE Digitizer and Tracker; Texas Instruments Nu Machine Computer System; The Alien Group Voicebox for Microcomputers.

Volume 8, Number 3, Fall 1984

- "Time-Domain Formant-Wave-Function Synthesis." Xavier Rodet. 9-14.
- "The CHANT Project: From Synthesis of the Singing Voice to Synthesis in General." Xavier Rodet, Yves Potard, and Jean-Baptiste Barrière. 15-31.
- "FORMES: Composition and Scheduling of Processes." Xavier Rodet and Pierre Cointe. 32-50.
- "The Bourges International Festival of Experimental Music: A Retrospective." David Keane. 51-59.
- "Responsive Input Devices and Sound Synthesis by Simulation of Instrumental Mechanisms: The Cordis System." C. Cadoz, A. Luciani, and J. Florens. 60-73.
- "Notes on the Realization of *Bhakti*." Jonathan Harvey, Denis Lorrain, Jean-Baptiste Barrière, and Stanley Haynes. 74-78.

Reviews

Publications

- "Derek Bailey: *Musical Improvisation*." Leslie Heeter. 79.
- "*Psychomusicology*." Otto Laske. 80.

Records

- "Ton Bruynèl: *Electronic Music*." James Dashow. 82-83.
"Charles Dodge: *Cascando*, and John Harbison: *Full Moon in March*." Bill Schottstaedt. 84.
"Computer Music from the Outside In." Stephan Kaske. 84.
"Luc Ferrari: *Presque Rien*." Christopher Yelow. 85-87.
"Marice Stith: *Marice Stith Plays Contemporary Literature for Trumpet*." Conrad Cummings. 88.
"Elektronische Musik." R. L. Blevins. 88.

Concerts

- "Berio and Scriabin: Two Cambridge Concerts." Curtis Roads. 89.
"Earl Howard: The Music of Earl Howard." Curtis Roads. 90.

Products of Interest (91-98)

Altered Media Project Grand Canonical Ensemble Digital Synthesizer; IEEE Proceedings of the Symposium on Small Computers and the Arts; Mode Record Service; Canon LBP-CX Desktop Laser Printer; Fallen Leaf Press Index of *Perspectives of New Music*; Key Concepts Notebender Keyboard; NTP Elektronik A/S 582 Programmable Equalizer; Electronic Music Games and Toys; 1982/83 *Composium Directory of New Music*; RS-232 *Made Easy* Book; LIMB 3 Proceedings; Micro Technology Unlimited Digisound-16 A/D/A Converters; Matsushita 16-Track Digital Recorder; Whitesmiths Unix-Compatible Systems; RolandCorp MPU-401 MIDI Processing Unit; RolandCorp MSQ-700 Digital Keyboard Sequencer; Apple Macintosh Computer; U.S. Design DEC and Multibus-Compatible Mass-Storage System; Studer A810 Tape Recorder; Springer-Verlag Signal Processing and Computer Books; Revox B225 Compact Disk Player; RolandCorp BOSS DD-2 Foot Pedal Digital Delay; John Wiley & Sons Artificial Intelligence Books; Agfa-Gevaert PEM 428 One-mail Studio Mastering Tape; Vistar Corp. 620 Digitally Tunable Lowpass

Filter; Digital Keyboards Inc. Synergy Plus Digital Synthesizer.

Soundsheet

- "CHANT Examples." Xavier Rodet, Yves Potard, Alejandro Viñao, Jean-Baptiste Barrière.
"Chréode (Excerpts)." Jean-Baptiste Barrière.
"Vers le Blanc (Excerpt)." Kaija Saariaho.
"Bhakti for 15 Instruments and Tape (seven excerpts)." Jonathan Harvey.

Volume 8, Number 4, Winter 1984

- "Audio Analysis I: Phase Correction for Digital Systems." Philip Greenspun. 13-19.
"Flavors Band: A Language for Specifying Musical Style." Christopher Fry. 20-35.
"Computer Applications in Music Theory: A Retrospective." Dorothy Gross. 35-42.
"A General-Purpose Sequencer for MIDI Synthesizers." Emile Tobenfeld. 43-44.
"Interview with Roger Reynolds, Joji Yuasa, and Charles Wuoriner." Richard Boulanger. 45-54.
"Notes on the International Conference on Music, Reason, and Emotion." Otto Laske. 55.

Reviews

Publications

- "Fred Lehrdahl and Ray Jackendoff: *A Generative Theory of Tonal Music*." Peter Child. 56-64.
"Samuel Adler: *The Study of Orchestration*." Christopher Yelow. 65-66.
"John R. Pierce: *The Science of Musical Sound*." Curtis Roads. 67.

Records

- "James Dashow: *Computer Music, Musica Elettronica*." David Place. 68.
"Michael McNabb: *Computer Music*." Thomas Wells. 69-70.

"Herbert Brün: *Compositions*." Thom Blum. 71-73.

"Denis Smalley, Simon Emmerson, and Treavor Wishart: *Mouth Music, Performed by Singcircle, Conducted by Gregory Rose*." David Keane. 74-75.

Concerts

"New Horizons '84." Brooke Wentz. 76-78.

Products of Interest (79-88)

Sound Composition Systems Serial-to-MIDI Converter; Software for Apple Macintosh Computers; Olschi Editore *Musical Grammars and Computer Analysis* Book; Audio+Design Recording Propack 2 Adapter for the Sony PCM-F1; YAMAHA Computer Music Products; Meyer Sound Laboratories Speakers; LehrWare Metawave Software Package for the alphaSyntauri; CompuSonics DSPs; Apogee Acoustics Scintilla Speaker; Musicdata Musical Software; Sony and Studer Stereo Digital Tape Recorders; Sony Digital Audio Mixer; Ursa Major 323 Digital Reverberator; Eventide Spudsystem DSP; Roland Corp MM-4 MIDI Thru Box; Digital Reverberators; Meyer Sound Laboratories Time Correction Filter; Raad Instruments Electric Violins; Digital Press Inc. *Common LISP* Book; Melodian Songbird Synthesizer for the Commodore64; Micro Technology Unlimited DigiSound-16; ADA Signal Processor Digital Multi-Effects.

Volume 9, Number 1, Spring 1985

"Computer Music Experiments, 1964- . . ." Jean-Claude Risset. 11-18.

"A Conversation with Clarence Barlow." Stephan Kaske. 19-28.

"The PODX System: Interactive Compositional Software for the DMX-1000." Barry Truax. 29-38.

"The Deterioration of an Ideal, Ideally Deteriorized: Reflections on Pietro Grossi's *Paganini Al Computer*." Kenneth Gaburo. 39-44.

"The CERL Music Project at the University of Illinois." Carla Scaletti. 45-58.

Reviews

Publications

"J. Sundberg, editor: *Studies in Musical Performance*." Otto Laske. 59.

"Kenneth Gaburo, editor: *Allos*." Martha Cotton. 60.

"*Digital Audio Magazine*." Alexander Trask. 61.

"Blessner, Locanthi, and Stockman, Jr.: *Digital Audio*." K. Tanawa. 61.

Records

"Conrad Cummings and Chinary Ung: *Beast Songs/Tall Wind*." William Matthews. 62.

"Harrison et al.: *Lukas Foss conducts the Brooklyn Philharmonic*." Andrea Houtkin. 63-64.

"George Todd and Barry Schrader: *Voicemask, Emergence/Trinity*." Paul Lehrman. 65.

"Ragnar Grippe: *Ten Temperaments*." Ernest Lee Hammer. 66.

"Kreiger, Matthews, and Tanenbaum: *American Composers Alliance Recording Award*." Hubert S. Howe, Jr. 66-67.

"Warren Burt: *Four Pieces for Synthesizer, Studies*." Gregory Patrick Garvey. 68-71.

Products of Interest (72-83)

Exploring MIDI Book; Expertelligence LISP and LOGO for Apple Macintosh; Philips CD-Subcode Processor/Editor; *Documenta Belgicae-Musique* Book; *LIMB 4* Proceedings; Kurzweil Applied Intelligence KSC2408 Digital Filter Chip; MIT Press *Foundations of Computer Music* Book; W. H. Kaufmann Inc. Computer Music and Digital Audio Books; Sogitec-TNA 4X Real-Time Digital Signal Processor; Professional Modifications for Sony PCM 701 ES; CLUE Digital Audio for Sony PCM-F1/701; Harmonia Mundi Acustica BW 102 Professional Digital Audio Interface; PCS/Cad-

mus Computer Music System; PPG Waveterm Synthesizer; Longman, Inc. Computer Music and Analog Music Books; Neotek Mixing Consoles; E-mu Systems Emulator II; Decillionix Operating System for Sound Sampling; Peavey Electronic Corp. DECA Series Digital Energy Conversion Amplifier; Beilfuss Performance Synthesizer; *Sensors Journal of Machine Perception*; Logical Microcomputer Co. Megamicro 32-bit Systems; AKG K-340 Headphones; Addison-Wesley Artificial Intelligence Books; Tektronic 4044 Artificial Intelligence System Computer; *Acustica and Journal of the Acoustical Society of America* Acoustics Journals; DIGI-ATOM 4800 Analog-to-MIDI Interface; YAMAHA REV-1 Digital Reverberator; PAiA Catalog; Polhemus Price Cut; Publison Infernal Machine 90 Audio Computer System; Mark of the Unicorn Macintosh Music Editor; Audio and Design/Calrec GTX129 Low Noise, High-Performance Preamplifier; University of Toronto Press *Alternative Voices* Book; Gaines Audio AD-1 Active Direct Box.

Soundsheet

Excerpts from the music of Jean-Claude Risset.
Excerpts from the music of Clarence Barlow.

Volume 9, Number 2, Summer 1985

- "Audio Analysis II: Read-Only Optical Disks." Christopher Fry. 9-19.
- "Report from the 1984 International Computer Music Conference." Goffredo Haus et al. 20-40.
- "About AUDIUM: A Conversation with Stanley Shaff." Gareth Loy. 41-48.
- "A Digital Flute." M. Yunik, M. Borys, and G. W. Swift. 49-52.
- "Report on the Fourth Annual Symposium on Small Computers in the Arts." Jim McConkey. 53-59.

Reviews

Publications

- "David Droman: *Exploring MIDI*." Curtis Roads. 60.

Records

- "TM+, Trio Instrumental Electroacoustique." Joseph Paul Taylor. 60-61.
- "Neil B. Rolnick: *Solos*." Leslie Heeter. 62.
- "Bruno Spoerri and Betha Sarasin." Paul Lehrman. 63.
- "Tod Machover: *Light; Soft Morning, City!*" Robert J. Owens. 64-65.
- "Pierre Schaeffer: *Parole et Musique*." Curtis Roads. 66.
- "Gilbert Amy: *Une Saison en Enfer*." Ernest Lee Hammer. 67.
- "*New Music from Iowa*." Andrea Houtkin. 67.

Concerts

- "Boston Musica Viva: Music for Instruments and Electronics." Paul D. Lehrman. 68-70.

Products of Interest (71-79)

Hinton Instruments MIDIC Computer-to-MIDI Interface; Epsilon MProlog; Mimetics Corp. Data/7 Software for the DX7; Houghton-Mifflin *Passion for the Piano* Book; Franz Inc. Franz LISP; *The Journal of Logic Programming*; Synergy II Plus Update; Studer DASH Format Audio Recorder; Audio Kinetics Inc. Q-LOCK Audio/Video synchronizer; Garfield Electronics Mini Doc Instrument Synchronizer; GEM G30 Portable Keyboard Instrument; Eventide H969 ProPitch Harmonizer; Hayden Software Company Music-Works for the Apple Macintosh; Roland Corp SBX-80 SMPTE/MIDI Synchronizer Box; WERSI Condor DX-100 Digital Keyboard Instrument; Digital Sound Effects; LehrWare Sound Library for the alphaSyntauri; Synchronous Technologies SMPL System Low-Cost SMPTE Timecode Sys-

tem; Ensoniq Mirage Digital Sampling Keyboard; Hybrid Arts MIDITRACK Atari/MIDI Sequencer; Personal Composer Software for the IBM PC/XT; Octave-Plateau Electronics IBM PC Interface for Voyetra Synthesizer.

Volume 9, Number 3, Fall 1985

- "Machine Tongues X: Prolog." Mira Balaban and Neil V. Murray. 7-12.
 "Fundamentals of Digital Filter Theory." Julius O. Smith. 13-23.
 "A Development System for Real-Time Digital Audio Signal Processing." Anthony Agnello and Steve Hoge. 24-38.
 "The Yamaha CX5M Music Computer: An Evaluation." John Duesenberry. 39-51.
 "Music Software for the Apple Macintosh." Christopher Yavelow. 52-67.
 "Audio Analysis III: Hi-Fi Video Recorders." Philip Greenspun. 68-79.

Reviews

Publications

- "Curtis Roads and John Strawn, editors: *Foundations of Computer Music*." D. Gareth Loy. 80.
 "Harold Abelson, Gerald Sussman, and Julie Sussman: *Structure and Interpretation of Computer Programs*." Christopher Fry. 81-83.
 "William J. Strong and George R. Plitnick: *Music, Speech, High Fidelity*." Ernest Lee Hammer. 84.

Records

- "Branchi, Mollia, Baggiani-Nottoli, Giordani: *INSOUND 1*; and Razzi, Doati, Graziani, Rampazzi: *INSOUND 2*." Andrea Houtkin. 84-86.

Products of Interest (87-92)

- 4X from Digital Music Systems; Sony Digital Audio Products; Yamaha Computer Music Products;

EMT-Gotham Systex Computerized Audio Retrieval System; Roland Standard MIDI Song Format; Technos 16-pi Digital Synthesizer; Nakamichi MR-1 Professional Cassette Recorder; Expertelligence Experlisp and Experlogo Languages for Macintosh; Kurzweil Music Systems MacAttach for Kurzweil 250; E-mu Systems Sound Designer for Emulator II and Macintosh; Apple Computer Macintosh Laserwriter; MusPrint for Macintosh; Eidco Resources Film Music Tool Kit for Apple Computers; Grandmaster Inc. MusicEase Automatic Bass Accompaniment for IBM PC; Hafler P505 Power Amplifier; Micro Networks MN5420 Floating-Point ADC; La Ma de Guido Computerized Music Printing Service; Editing Services Timecode Software for Apple II Computers; RolandCorp SBX-80 SMPTE Synthesizer Box; Kurzweil Music Systems KSC2048 Digital Filter Chip; Spanta Inc. ATR-1 Real-Time Analyzer.

Volume 9, Number 4, Winter 1985

- "Musicians Make a Standard: The MIDI Phenomenon." Gareth Loy. 8-26.
 "Personal Composer." Jim Miller. 27-37.
 "Ensemble Timing in Computer Music." David Jaffe. 38-48.
 "LASSO: An Intelligent Computer-based Tutorial in Sixteenth-Century Counterpoint." Steven R. Newcomb. 49-61.
 "Interview with Robert Moog." Henning Lohner. 62-65.

Reviews

Publications

- "Nicola Sani, editor: *Musica Informatica/Industria*." Curtis Roads. 66.
 "Bonaventura Anthony Paturzo: *Making Music with Microprocessors*." S. W. Cooper. 66-67.
 "Musicworks: *The Music of James Tenney*." Joseph Paul Taylor. 67-69.
 "Nouritza Matossian: *Iannis Xenakis*." Otto Laske. 69.

Records

"Experimental Music Studios, University of Illinois: *In Celebration of the 25th Anniversary of the Experimental Music Studios.*" Richard L. Swank. 70.

"David Tudor: *Pulsers/Untitled.*" Joseph Paul Taylor. 71.

"Elliot Mazer and Loren Rush, producers: *The Digital Domain.*" Roscoe Farmer. 72-73.

Products of Interest (74-85)

The Droid Works SoundDroid; MIDI Interface for the Apple Macintosh; MIDI Interface for the Radio Shack Color Computer; Total Music Software; MIDIMAC Interface from Opcode Systems; Denon Digital 4-Track Recording System; Micro-

computer-controlled Audio Performance System; Monster Alpha Two Cartridge and CD Cable; IEEE Publications, *VLSI Signal Processing*; Favorite Music Systems Audio Cable and Mini-monitors; *Sound Choice Magazine*; Lync Performance Keyboard; MIDI Support for Decillionix Sampler; Michael McNabb *Computer Music Compact Disk*; Forte MIDI-MOD for Acoustic Pianos; Fairlight CMI Series III; Korg Digital MIDI Recorder with Disk; Korg DW8000 Digital Synthesizer; EMT 448 Digital Audio Spot Recorder; ExperOPS5 for the Apple Macintosh; Octave-Plateau Sequencer Plus for the IBM PC; Moog Song Producer for Commodore Computers; Synclavier II Updates; Programmable Metronome/Synthesizer; Professional Audio Cassette Decks; Yamaha QX7, DX5, DX21, KX88, TX7, RX21.

